

REMARKS

Claims 1-35 are cancelled without prejudice. Claims 45-55 have been added. Claim 36 has been amended. With entry of this Amendment, claims 36-55 will be pending. No new matter has been introduced. Applicant respectfully submits that the newly-presented claims are in condition for allowance.

The Examiner rejected claims 37-39 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner also rejected claims 29-32 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,169,662 to Spicer (“Spicer”) in view of U.S. Patent No. 6,248,387 to DeVay (“DeVay”). The Examiner further rejected claims 33-35 under 35 U.S.C. § 103(a) as being unpatentable over Spicer in view of applicant’s admission of prior art. Finally, the Examiner rejected claims 36-44 under 35 U.S.C. § 103(a) as being unpatentable over Spicer in view of applicant’s admission of prior art and DeVay.

Independent Claim 36 and Dependent Claims 37-44

Claims 36 recites “[a] dough comprising:

- 1) beta-glucan soluble fiber or a source of beta-glucan soluble fiber;
- 2) a non-digestible fat or a source of non-digestible fat; and
- 3) about 23% to about 31% by weight water.”

Support for the amendment to claim 36 can be found, inter alia, in Examples 2 and 4-6 of the specification.

Spicer discloses a method “of preparing an uncooked dough mix which includes ground oat bran, corn bran and corn meal.” Col. 3, lines 38-40. “The moisture level of the dough, including free and bound water is adjusted to a total level of from about 14 to 18 percent by weight of the dough mix.” Col. 3, lines 40-43. “The uncooked dough mix is cooked under predetermined conditions of heat and pressure in an extruder so as to cause the dough mix to exit from the extruder at a total moisture level of from about 8 to about 12 percent.” Col. 3, lines 43-47. “Thereafter, the cooked dough mix is dried to provide a finished product with a maximum moisture of about 3 percent by weight, and preferably a moisture below 2.5 percent.” Col. 3, lines 49-53.

The references on page 7 of the specification disclose suitable non-digestible edible lipids for use in the present invention.

DeVay discloses “psyllium-containing snack foods and methods for preparing the same.” Col. 2, lines 30-31. The snack products “preferably contain from about 75 to about 99% by weight starchy material and from about 1 to about 25% by weight psyllium, and optionally other edible ingredients, e.g., colorants, flavorants, preservatives, leavening and processing aids.” Col. 2, line 66 to Col. 3, line 4.

Neither Spicer, the non-digestible edible lipids references nor Devay, taken separately or combined, teach or suggest “[a] dough comprising: 1) beta-glucan soluble fiber or a source of beta-glucan soluble fiber; 2) a non-digestible fat or a source of non-digestible fat; and 3) about 23% to about 31% by weight water.” Spicer’s dough, for example, discloses a maximum moisture level of 18%. The higher moisture content of the claimed invention improves the overall handling properties of the dough and allows the dough to be efficiently extruded and/or sheeted.

Therefore, claim 36 is allowable. Consideration and allowance of claim 36 are respectfully requested.

Claim 37 was rejected on the basis that elements in the claim cannot be found in the specification. Applicant respectfully directs the Examiner to Example 2, which indicates that the “[f]inal moisture contents are about 0-4%” after the cracker baking step. Page 19, line 15. Since claim 37 is supported by the specification and depends from allowable claim 36, it is therefore allowable. In addition, claim 37 contains additional patentable subject matter. Particularly, claim 37 recites “[t]he dough of Claim 36 wherein the dough is cooked to reduce moisture content to less than about 4% by weight.”

Claim 38 was rejected on the basis that elements in the claim cannot be found in the specification. Applicant respectfully directs the Examiner to Example 2, which indicates that “[a]s the hot baked crackers exit the oven, they are sprayed with hot oil or Olean® at approximately 160°F (71.1°C) at a level of about 10% their post baked weight.” Page 19, lines 18-19. Since claim 38 is supported by the specification and ultimately depends from allowable claim 36, it is therefore allowable. In addition, claim 38 contains additional patentable subject matter. Particularly, claim 38 recites “[t]he dough of Claim 37 wherein molten non-digestible fat or a source of a non-digestible fat is applied to a surface of the cooked dough.”

Claim 39 was rejected on the basis that the limitations in the claim cannot be found in the specification. Applicant respectfully directs the Examiner to page 6 of the specification where “[o]ther embodiments of Applicants’ invention contain at least about 0.75 grams of beta-glucan soluble fiber per 30 grams of embodiment,” and page 9 of the specification where [i]n other embodiments of Applicants’ invention, each embodiment contains at least about 4 grams of non-digestible fat per 30 grams of embodiment.” Page 6, lines 23-24; Page 9, lines 4-5. Since claim 39 is supported by the specification and depends from allowable claim 36, it is therefore allowable. In addition, claim 39 contains additional patentable subject matter. Particularly, claim 39 recites “[t]he dough of Claim 36 used to produce a finished snack product comprising at least about 0.75 g beta-glucan soluble fiber and at least about 4 g olestra per 30 g single serving.”

Claim 40 depends from allowable claim 36, and therefore is allowable. In addition, claim 40 contains additional patentable subject matter. Particularly, claim 40 recites “[t]he dough of Claim 36 wherein the non-digestible fat comprises olestra.”

Claim 41 depends from allowable claim 36, and therefore is allowable. In addition, claim 41 contains additional patentable subject matter. Particularly, claim 41 recites “[t]he dough of Claim 36 wherein the dough has a beta-glucan soluble fiber level of at least about 1% by weight.”

Claim 42 depends from allowable claim 36, and therefore is allowable. In addition, claim 42 contains additional patentable subject matter. Particularly, claim 42 recites “[t]he dough of Claim 36 wherein the dough has a beta-glucan soluble fiber level of at least about 2% by weight.

Claim 43 depends from allowable claim 36, and therefore is allowable. In addition, claim 43 contains additional patentable subject matter. Particularly, claim 43 recites “[t]he dough of Claim 36 wherein the dough has a beta-glucan soluble fiber level from about 1% to about 10% by weight.”

Claim 44 depends from allowable claim 36, and therefore is allowable. In addition, claim 44 contains additional patentable subject matter. Particularly, claim 44 recites “[t]he dough of Claim 36 further comprising a carbohydrate source.”

Accordingly, dependent claims 37-44 are allowable. Consideration and allowance of these claims are respectfully requested.

Independent Claim 45 and Dependent Claims 46-52

Claim 45 recites “[a] sheeted uncooked dough comprising a source of beta-glucan soluble fiber having at least about 11.5% by weight beta-glucan soluble fiber.”

Support for the new independent claim 45 can be found, inter alia, on page 23, lines 10-11 of the specification. Support for the new dependent claim 46 can be found, inter alia, on page 26, line 2. Support for the new dependent claims 47-49 can be found, inter alia, on page 6, lines 29-34 and in Examples 2-7. Support for new dependent claims 50-52 can be found in the original claim set.

Spicer discloses a dietary food product comprising, “on a dry basis, oat bran at a level of from about 45 percent to about 55 percent; corn bran at a level of from about 17 percent to about 25 percent; corn meal at a level of from about 10 percent to about 25 percent; and triticale at a level of 0 percent to about 10 percent.” Col. 3, lines 54-59. The source of beta-glucan in Spicer is regular oat bran which, according to the table in Col. 4, contains 6-6.8% soluble dietary fiber. (Note that the column headings do not match the description. The first column of the table should be “Oat Bran” and the second column should be “Corn Bran.”) It is not clear how much of that 6-6.8% soluble dietary fiber is beta-glucan soluble fiber. However, even assuming the entire 6.8% of soluble dietary fiber is beta-glucan soluble fiber, the oat bran of Spicer would contain at most about 59% of the beta-glucan soluble fiber available in the claim 45 source.

Use of an enriched or concentrated source of beta-glucan allows for a lower concentration of that source in the dough formulation to achieve a given level of the beta-glucan soluble fiber component. The source of beta-glucan can often have a detrimental effect on the physical properties of a dough. For example, Spicer determined “that an expanded oat bran product cannot be produced using oat bran alone.” Col. 5, lines 44-45. “Extrusion problems and lack of expansion result even when oil is added to a dough mix formed from oat bran.” Col. 5, line 46-47. By using, for example, an enriched oat bran, it is possible to achieve the desired levels of beta-glucan soluble fiber and minimize any detrimental effect the source has on the consistency of the dough. This is particularly advantageous when trying to formulate a sheeted uncooked dough. In summary, Spicer does not teach or suggest “[a] sheeted uncooked dough comprising a source of beta-glucan soluble fiber having at least about 11.5% by weight beta-glucan soluble fiber.”

Therefore, claim 45 is allowable. Consideration and allowance of claim 45 are respectfully requested.

Claim 46 depends from allowable claim 45, and therefore is allowable. In addition, claim 46 contains additional patentable subject matter. Particularly, claim 46 recites “[t]he dough of Claim 45 wherein the source of beta-glucan soluble fiber has at least about 18.5% by weight beta-glucan soluble fiber.”

Claim 47 depends from allowable claim 45, and therefore is allowable. In addition, claim 47 contains additional patentable subject matter. Particularly, claim 47 recites “[t]he dough of Claim 45 wherein the dough comprises about 5% to about 40% by weight of the source of beta-glucan soluble fiber.”

Claim 48 depends from allowable claim 45, and therefore is allowable. In addition, claim 48 contains additional patentable subject matter. Particularly, claim 48 recites “[t]he dough of Claim 45 wherein the dough comprises from about 10% to about 25% by weight of the source of beta-glucan soluble fiber.”

Claim 49 depends from allowable claim 45, and therefore is allowable. In addition, claim 49 contains additional patentable subject matter. Particularly, claim 49 recites “[t]he dough of Claim 45 wherein the source of beta-glucan soluble fiber comprises oat bran concentrate.”

Claim 50 depends from allowable claim 45, and therefore is allowable. In addition, claim 50 contains additional patentable subject matter. Particularly, claim 50 recites “[t]he dough of Claim 45, further comprising a non-digestible fat or a source of non-digestible fat.”

Claim 51 ultimately depends from allowable claim 45, and therefore is allowable. In addition, claim 51 contains additional patentable subject matter. Particularly, claim 51 recites “[t]he dough of Claim 50 wherein the non-digestible fat comprises olestra.”

Claim 52 ultimately depends from allowable claim 45, and therefore is allowable. In addition, claim 52 contains additional patentable subject matter. Particularly, claim 52 recites “[t]he dough of Claim 50 further comprising a carbohydrate source.”

Accordingly, dependent claims 46-52 are allowable. Consideration and allowance of these claims are respectfully requested.

Independent Claim 53 and Dependent Claims 54-55

Claim 53 recites “[a] dough comprising:

- 1) a source of beta-glucan soluble fiber having at least about 11.5% by weight beta-glucan soluble fiber; and
- 2) about 23% to about 31% by weight water.”

Support for the new independent claim 53 can be found, inter alia, on page 23, lines 10-11 and in Examples 2 and 4-6 of the specification. Support for the new dependent claims 54-55 can be found, inter alia, on page 6, lines 29-34 and in Examples 2-7.

The claimed source has a higher concentration of beta-glucan soluble fiber than the regular oat bran of Spicer, as discussed with respect to independent claim 45. Additionally, the claimed dough has a higher water content than that of Spicer as discussed with respect to independent claim 36. Use of an enriched or concentrated source of beta-glucan soluble fiber and a higher moisture content in the dough together yield improved dough handling properties for any given level of beta-glucan soluble fiber. Such dough can be efficiently extruded and/or sheeted as exemplified in examples 2-7 of the application. In contrast, Spicer discloses extrusion problems when their dough contains oat bran alone. Col. 5, lines 44-47. Spicer therefore added “a combination of corn bran and corn meal” to a dough mix containing oat bran to improve extrusion and expansion properties. Col. 5, lines 48-51.

Spicer does not teach or suggest “[a] A dough comprising: 1) a source of beta-glucan soluble fiber having at least about 11.5% by weight beta-glucan soluble fiber; and 2) about 23% to about 31% by weight water.” Therefore, independent claim 53 is allowable. Consideration and allowance of claim 53 are respectfully requested.

Claim 54 depends from allowable claim 53, and therefore is allowable. In addition, claim 54 contains additional patentable subject matter. Particularly, claim 54 recites “[t]he dough of Claim 53 wherein the dough comprises about 5% to about 40% by weight of the source of beta-glucan soluble fiber.”

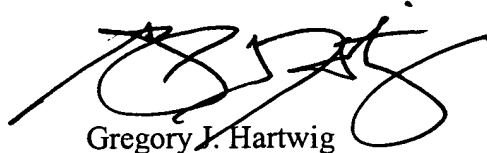
Claim 55 depends from allowable claim 53, and therefore is allowable. In addition, claim 55 contains additional patentable subject matter. Particularly, claim 55 recites “[t]he dough of Claim 53 wherein the dough comprises from about 10% to about 25% by weight of the source of beta-glucan soluble fiber.”

Accordingly, dependent claims 54-55 are allowable. Consideration and allowance of these claims are respectfully requested.

CONCLUSION

In view of the foregoing, consideration and allowance of claims 36-55 are respectfully requested. The Examiner is strongly encouraged to contact the undersigned by telephone at the Examiner's convenience should any issues remain.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Gregory J. Hartwig', is written over a horizontal line.

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